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Financial Profile Of 15 New Agricultural Marketing Cooperatives

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FINANCIAL PROFILE OF 15 NEW AGRICULTURAL MARKETING COOPERATIVES, by Ralph W. Dutrow, Phillip F. Brown, and Raymond Williams. Cooperative Development Division, Agricultural Cooperative Service, U.S. Department of Agriculture. ACS Service Report No. 2.

ABSTRACT

Fifteen new agricultural marketing cooperatives more than doubled their membership and increased their sales almost 300 percent during the study period, about 1968 to 1978. These cooperatives were studied because they successfully survived their initial 5 to 10 years of operation. Banks for Cooperatives were active in providing capital for seasonal and operating purposes but less active in providing long-term loans to these new cooperatives.

Key words: Cooperative finance, cooperative operations, equity, financial ratios.

PREFACE

Growth of 15 new agricultural marketing cooperatives is analyzed in this report. In addition to looking at increases in membership, gross sales and net savings, this study focuses on such financial factors as several key balance sheet ratios and the uses of debt and equity capital for cooperative expansion.

These financial profiles should be useful to individuals, organizations, and lenders who provide technical and financial assistance to cooperatives, and who need information to evaluate the likelihood of the cooperatives' success. Such organizations and lenders include USDA's Agricultural Cooperative Service and Farmers Home Administration (FmHA), agricultural extension departments of the land grant universities, Banks for Cooperatives of the Farm Credit System, and commercial banks.

Methodology

Data obtained from the actual operations of recently formed cooperatives was the basis for this study. The original intention was to select a random sample of new cooperatives to be studied; however, because a limited number of new cooperatives are still operating we included in our study all of these we could identify. The cooperatives included in our study were limited to livestock, grain, or fruit and vegetable marketing; no supply or service cooperatives were included. The cooperatives selected had more than 5 years but less than 10 years of operating experience prior to the beginning of our study. Thus, they had a period of time to become established and to develop an operating history, but their formative

period was recent enough to be relevant to today's conditions. The cooperatives were all formed between 1968 and 1972. The term "most recent year," on the average is the eighth year, and it ranges from the 6th to 10th year of operations; it was fiscal year 1977 or 1978. Finally, none of the cooperatives in the study is a local outlet or branch of a larger cooperative. All are independently managed and financed, although some may have marketing arrangements with large cooperatives.

This study is based on the data provided by 15 agricultural marketing cooperatives: 5 engaged in fruit and vegetable marketing, 4 in livestock marketing, and 6 in grain marketing. These 15 cooperatives are in 11 States, with no more than 2 cooperatives from any one State. The States with two cooperatives are Kentucky, Mississippi, North Carolina, and North Dakota. Alabama, California, Minnesota, Michigan, Virginia, Wisconsin, and Delaware were each represented by one cooperative.

Whenever possible, the annual reports of the cooperatives were acquired to obtain reliable data. Much of the data we sought could be obtained from balance sheets and operating statements covering a period of years, providing a wealth of useful information. Physical volumes of commodity handled were also sought, as was information on the original goals and intentions of the cooperative at the time of its inception to see how its subsequent experience met these established intentions.

Though this publication is descriptive of 15 cooperatives, care should be taken in drawing conclusions beyond the experiences of these 15 diverse organizations.

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HIGHLIGHTS

The 15 new agricultural cooperatives studied successfully survived their first 5 to 10 years of operation, a difficult period for any business.

These cooperatives more than doubled their membership during the period studied, about 1968 to 1978, and increased their gross sales almost 300 percent. Net savings increased from an average of about \$2,200 to nearly \$114,000 from the first to the most recent year. Average total assets increased from \$621,706 in the first year to \$2,400,793 in the most recent year.

Solvency and liquidity aspects of these cooperatives indicate their financial health. Liquidity ratios exceeded 1.0 in every year, showing that, on average, the cooperatives were not threatened with bankruptcy. Measures of solvency, the total liabilities to net worth and net capital ratios, indicate that, although heavily in debt, the cooperatives would still have been able to meet all their financial obligations if the business had been dissolved.

The cooperatives' ability to acquire debt capital was also investigated. The cooperatives took out 53 loans totaling \$23,660,989. Of this amount, the Banks for Cooperatives loaned \$21.4 million or more than 90 percent. Most of this volume was for seasonal and operating purposes; the Banks for Cooperatives were found to have been much less involved in providing venture capital to these new cooperatives except for a single loan for \$2.7 million.

Financial Profile of 15 New Agricultural Marketing Cooperatives

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Agricultural Economists

Financial institutions tend to focus on the role of member equity capital as the major factor in determining the success or failure of new agricultural cooperatives. The first questions potential lenders usually ask are how much capital is needed, and how much of that will be provided by the members. Boards of directors and hired management have an even greater stake in knowing the financial needs of a cooperative. Most concerned of all, however, are the members of a new cooperative, who face the difficult decision of whether to invest capital in the cooperative.

A new cooperative business requires large amounts of capital. This money can be obtained in only two ways: either provided by the members through purchase of stock, or borrowed from financial institutions. For some cooperatives, such as livestock auction barns, the financial demands may be low enough so members can provide all or nearly all of the capital. For larger, more capital intensive cooperatives, however, even a maximum financial contribution may add up to a low equity level. The amount of equity capital invested by members is also an important indication of the support and commitment of members to the cooperative. Members with a substantial financial stake in a new cooperative are more likely to support it with their patronage, especially during the crucial early years of the cooperative's operation.

To be feasible and to meet the goals established by members, a new cooperative must be financed adequately. Important decisions with respect to the structure, development, and funding of cooperatives are often made on the basis of "rules of thumb" concerning member equity and other financial considerations. To have validity, however, these guidelines must be based on and be consistent with the successful operating experiences of other cooperatives.

ANALYSIS OF THE DATA

Several key factors were analyzed to gauge the progress of the cooperatives—changes in membership, pricing methods, and changes in income and net savings.

Changes in Membership

Agricultural cooperatives, like other businesses, have to grow to become and stay successful. One measure of a cooperative's growth is its ability to attract new members. By this criterion, the cooperatives in our survey were notably successful.

Cooperatives in this study averaged 135 members in their first year of operation, ranging in membership from 8 to 610 (table 1). By the most recent operating year, the average had increased their membership 138 percent. Grain cooperatives, starting with an average of 122 members, grew 241 percent.

Table 1—Member patrons

Year	All cooperatives		Fruit and vegetable	Livestock	Grain
	Average	Range			
	<i>Number</i>		<i>Average number</i>		
First year	135	8-610	63	252	122
Third year	163	9-610	81	266	182
Fifth year	179	9-725	79	333	252
Most recent year	310	9-1,080	150	398	416

* Former director of Cooperative Development Division, now retired.

Livestock marketing cooperatives are in a somewhat different situation in that a patron generally becomes a member simply by marketing an animal through the auction ring. The three livestock marketing cooperatives that reported their membership grew 58 percent from their first to their most recent year. Only two cooperatives in the study actually lost membership; one lost 4 members from 16 to 12, and the other lost one member from 83 to 82.

Pricing Methods

Incentives for forming new cooperatives include higher prices and a fairer payment method for the commodity. Farmers who market their products through noncooperative firms often report long delays in receipt of payment, as well as questions about the grading and dockage of agricultural commodities. As a new business seeking to attract and hold patrons, the cooperative must adopt a fair method of paying its member patrons for their production. Table 2 shows the methods of payments used by the cooperatives surveyed.

Changes in Income and Net Margins

Whereas the ability to attract and hold new members is a measure of success unique to the cooperative form of business organization, an increase in gross sales and savings are usually universal indicators of business success. By this measure, the cooperatives in our survey were successful, on an aggregate basis they nearly quadrupled their gross sales (table 3). For the cooperatives reporting this information, gross sales averaged \$2,032,712 in the first year and climbed to \$8,444,415 by the most recent operating year. Net savings showed an even more spectacular increase, growing from an average of \$2,207 in the first year to \$113,843 in the most recent operating year. Growth of the cooperatives studied is also shown in table 4, which indicates that more cooperatives had moved into higher sales brackets by the most recent year studied.

Table 2—Method used to establish producer prices

Method	Fruits and vegetables	Grain	Livestock	Total
<i>Number</i>				
Auctions or going market price	1	4	4	9
Contract price	3	2	—	5
Pooled sales receipts	1	—	—	1
Total	5	6	4	15

— = None.

Table 3—Average composite income statements

Item	First year	Third year	Fifth year	Most Recent Year
<i>Dollars</i>				
Gross sales	2,032,712	4,200,677	5,735,520	8,444,415
Less:				
Payment to producers	1,873,170	3,886,166	5,266,469	7,919,914
Cost of supplies	252	2,447	3,182	8,690
Gross Margin	159,290	312,064	465,689	515,811
Operating expenses	168,436	308,454	442,083	547,295
Net operating margins	(9,146)	3,610	23,606	(31,484)
Other income ¹	11,353	21,630	63,627	145,327
Net savings	2,207	25,240	87,233	113,843
Per unit retains ²	13,173	8,485	34,099	16,936

NOTE: Net savings do not include per-unit retains.

¹Other income includes such sources of revenue as fees for services provided for members, patronage refunds from regional cooperatives and nonpatronage sources of income (rents, interest on savings accounts, etc.)

²Per-unit retains refer to investments made by patrons of farmer cooperatives based on the physical or dollar volume of products marketed through the cooperative.

Table 4—Distribution by gross sales¹

Gross sales	1st	3rd	5th	Most recent year
<i>Dollars</i>				
Less than 200,000	3	3	0	0
200,001-2 million	7	5	5	6
2,000,001-5 million	3	2	5	2
Over 5 million	0	3	4	5
Total	13	13	14	13
<i>Number</i>				

¹Not all cooperatives reported gross sales information.

Figures for gross sales and net savings are averages; not all cooperatives in the survey enjoyed such success. In their first year, three of the cooperatives, two of which are feeder pig sales organizations, operated at cost; that is, with zero net savings. Three other cooperatives lost money in their initial operating year in amounts ranging from \$390 to \$95,976, and averaging \$46,392. In the third operating year, the 2 feeder pig cooperatives again had zero savings while 4 of the remaining 13 cooperatives reported losses of \$23,637 to \$54,502 and averaged \$41,080. For the fifth operating year, the one feeder pig cooperative again had zero savings but the other lost \$1,391. Of the remaining 13 cooperatives, only 1 had a net operating loss, in the amount of \$962,037 on sales of \$9,094,105. Net savings of this cooperative nevertheless increased to \$6,028 on sales of \$11,442,361 during the most recent year. Even in their most recent operating years, 5 of the 15 cooperatives reported losses in their net returns, in amounts ranging from \$1,143 to \$67,966, averaging \$28,848. Only one of these five cooperatives consistently lost money; the rest experienced no more than two money-losing years in their entire operating history.

Unlike noncooperative corporations, cooperatives usually distribute their net savings, if any, to their member-patrons at the end of each fiscal year. These patronage refunds are made in proportion to the amount of business each member did with the cooperative that year. To exclude patronage refunds from taxable income, cooperatives are legally required to pay at least 20 percent of their patronage refunds in the form of cash, with the rest credited directly to the member's equity account.

Cooperatives sometimes choose to put all or part of their net savings in unallocated reserves and pay the corporate income tax on these retained funds. This procedure can provide the cooperative with more capital for reinvestment and growth or to meet operating losses.

Of the cooperatives surveyed, 12 allocate their savings to their members; the remaining three do not, either choosing to operate at cost or else to retain their earnings and pay the corporate income tax. Eight of the cooperatives indicated they would allocate or actually have allocated losses to their members. Seven, four of which market grain, said they either would not allocate losses to their members or have not had to.

Table 5 shows the pattern of savings distribution, simple averages, for the cooperatives surveyed. The net savings are the summation of the four ways cooperatives distribute their net earnings: as cash payments, allocated credits, unallocated reserves, or as income taxes paid. When a cooperative did not indicate how its savings were distributed, or when one lost money, the savings or loss was placed in the "Unallocated reserve (loss)" category, thus perhaps distorting this category.

Table 5—Average distribution of net savings

Item	1st year	3rd year	5th year	Most recent year
<i>Dollars</i>				
Cash payments	8,227	22,678	68,274	54,309
Allocated credits	5,311	4,111	57,136	50,253
Unallocated reserve (loss)	(11,331)	(1,755)	(43,670)	4,756
Income taxes paid	0	206	5,493	4,525
Net savings	2,207	25,240	87,233	113,843

Even when a new cooperative seems feasible and promising, costs and revenues frequently cannot be predicted. For one reason or another, there are often delays in implementing the project from the schedule that had been forecast. If this happens, fixed expenses must still be met even though income may be delayed, and a sufficient financial reserve should be maintained. Even for established cooperatives, sufficient net working capital or a line of operating capital credit is necessary to provide a safe financial reserve. Anyone contemplating formation of a new agricultural cooperative must realize that, although the objective is to make money and provide services, businesses occasionally lose money and provisions need to be made to meet such emergencies.

INFORMATION FROM BALANCE SHEETS

As a cooperative grows, its use of capital, as reflected by the value of total assets employed, increases substantially. As shown on the composite balance sheet (table 6), the average value of total assets for the 15 cooperatives was \$461,806 after the first year of operations, followed by a steady rise to \$2,400,793 at the end of the most recent year of operations.

Only 7 of the 15 cooperatives provided balance sheets for their start of operations. The average amount of equity per member was \$2,953 for these seven corporations, in other words, the typical member had invested \$2,953 to begin these cooperatives (table 7).

Member equity, as a percentage of total assets, fluctuated considerably during the operating history of these cooperatives. For the seven cooperatives providing start of operation balance sheets, the average total member equity was \$168,733; 27.14 percent to total assets. Total assets ranged from \$31,250 in the case of a feeder pig cooperative to \$2,917,668 for an apple processing cooperative and averaged \$621,706. Total member equity ranged from \$1,020 to \$572,811 or from about one-third of 1 percent to 96 percent of total assets. Every cooperative except one involved with vegetable marketing had at least some member equity at the start of operations.

Table 6—Average composite balance sheet

Item	Start of oper- ations	1st year	3rd year	5th year	Most recent year
<i>Dollars</i>					
Assets:					
Current assets	400,881	233,050	409,088	1,139,522	1,570,483
Fixed assets	217,347	225,471	286,208	316,889	737,704
Other assets	3,478	3,285	21,466	32,740	92,606
Total assets	621,706	461,806	716,762	1,489,151	2,400,793
Liabilities and Member Equity:					
Current liabilities	277,199	146,241	337,641	944,821	1,267,605
Term liabilities	160,799	160,119	201,673	188,014	397,515
Grants and gifts	14,975	1,772	0	8,341	25,467
Member equity	168,733	153,674	177,448	347,975	710,206
Total liabilities and member equity	621,706	461,806	716,762	1,489,151	2,400,793

Note: Start of operations data is from seven cooperatives only; subsequent years' data are based on 15 cooperatives. At the end of their first year of operations, the total assets for these seven cooperatives averaged \$634,179.

Table 7—Growth of seven cooperatives

Cooperative	Member patrons		Gross sales		Net savings		Per member equity		Total assets		Total equity as per- centage of total assets	
	Start of operations	Most recent year	First year	Most recent Year	First year	Most recent year	Start of operations	Most recent year	Start of operations	Most recent year	Start of operations	Most recent year
<i>Number</i>												
<i>Dollars</i>												
<i>Percent</i>												
Vegetable	—	393	100,618	435,674	(95,976)	(34,516)	—	0	300,020	410,432	0.34	0
Apple	40	66	2,968,541	11,442,361	(41,779)	6,028	14,320	42,350	2,917,668	6,712,541	19.6	41.6
Strawberry	8	9	1,093,135	6,637,363	121,609	126,308	7,413	101,213	61,768	3,571,754	96.0	25.5
Grain	158	643	5,615,459	54,738,819	(47,422)	1,173,334	2,305	5,496	447,693	11,256,133	81.4	31.4
Grain	47	50	700,000	3,170,000	61,233	175,000	3,830	4,112	519,120	479,285	34.7	42.9
Feeder pigs	100	350	—	708,320	0	(1,143)	13	7	31,250	18,586	4.0	13.9
Feeder pigs	47	234	649,902	2,803,367	8,811	65,799	54	353	74,430	176,019	3.4	46.9
Average	67	249	1,854,609	11,419,415	925	215,830	12,953	14,316	621,707	3,232,107	127.1	133.3

— = Information not available.

* Weighted average.

Balance sheet data for the 15 cooperatives were available beginning with the end of the first year of operations. Equity averaged \$153,674, or 33.28 percent of total assets by the end of the first year and \$710,206, or 29.58 percent, at the end of the most recent year of operations. By the end of the first year of operations, the cooperatives surveyed had incurred a great deal of debt; in one case a cooperative claimed no equity and the maximum level of cooperative equity had declined to 50.44 percent of total assets. At the end of the most recent operating year, two cooperatives had zero equity and the highest level of member equity in any of the cooperatives had reached 64.59 percent of total assets. By the most recent year the average amount of equity per member was \$4,316. Equity per member ranged from zero to \$101,213 for a particularly successful strawberry processing and marketing cooperative, a substantial investment by any standard.

Although the level of equity in relation to total assets fluctuated throughout the study period, the absolute amount of equity increased significantly. The increased capital was accumulated primarily through retained earnings, either allocated or unallocated, to the membership; although per unit retains were an important source of capital for several of the fruit and vegetable cooperatives.

Solvency and Liquidity

Debts can be classified into short- and long-term obligations, and these two types of debt affect liquidity and solvency. Liquidity relates to a firm's capacity to generate sufficient cash to meet its financial commitments as they fall due. Solvency is a more long-term concept than liquidity. A firm is solvent if the current market value of its assets exceeds its debt obligations and it is able to meet those obligations over a sufficiently long period of time. A firm may be solvent and liquid, or it may be in a liquid position and either solvent or insolvent. Working capital is necessary for ordinary cash flow needs as well as for unpredictable fluctuations in cash flow caused by varying prices, production, expenses, and other unforeseen circumstances. Cash is naturally most important in meeting liquidity requirements, followed by such near-cash items as inventory. A line of working capital credit can be an important supplement to cash in meeting liquidity needs.

Financial ratios calculated from information provided on a balance sheet can generally be useful in monitoring the financial health of a business although they are not always a reliable measure of success or stability. Ratios permit comparison among businesses of different size. The liquidity ratio, the total-liabilities-to-net-worth ratio, and the net capital ratio are particularly important measures of liquidity and solvency.

The liquidity ratio (often called the current ratio) is a key measure for businesses. It is the ratio of current assets over current liabilities. So long as the ratio exceeds 1.0, the cooperative has the means of paying its bills; that is, its current

assets exceed its current liabilities and it can at least avoid bankruptcy. The average of all surveyed cooperatives exceeded this ratio in all years of operation, as shown in table 8.

The annual reports of the cooperatives provided sufficient information to calculate 59 yearend liquidity ratios for individual cooperatives. Only five liquidity ratios fell below the key 1.0 figure.

One grain marketing cooperative experienced three ratios under 1.0, which may indicate a recurring liquidity problem at the ending of the fiscal year. The great majority of ratios were between 1.5 and 1.0.

Net working capital is the excess of current assets over current liabilities. It is the cushion of cash and other liquid assets available to meet emergencies. Lending institutions consider net working capital important in loan appraisal because it can be used for unforeseen cash needs.

Ratio of Total Liabilities to Net Worth

This ratio is calculated by dividing the current plus term liabilities by the members' equity in the cooperative; the higher the ratio the more highly leveraged is the business. One reference suggests that total liabilities should rarely exceed member equity for established cooperatives, however, this would be a very conservative constraint for new cooperatives.¹ For the cooperatives surveyed, their total liabilities to net worth ratio was 2.68 at the start of operation. That is, for every dollar of member equity, the cooperatives had \$2.68 in debt and payables. By the end of the first year, this ratio was

¹R. E. Page, R. W. Schemerhorn, and B. D. Romine, *Financial Analysis of Grain Supply Cooperatives*, Extension Circular E-813, Oklahoma State University, p. 6.

Table 8—Average liquidity ratio

Year	Current assets	Current liabilities	Net working capital	Liquidity ratio ¹
<i>Dollars</i>				
Start of operation ²	400,881	277,199	123,682	1.45
First year	233,050	146,241	86,809	1.59
Third year	409,088	337,641	71,447	1.21
Fifth year	1,139,522	944,821	194,701	1.21
Most recent year	1,570,483	1,267,605	302,878	1.24

¹The ratio of current assets to current liabilities.

²Applies to only 7 cooperatives.

2.01, after the third year it had risen to 3.04, and reached 3.28 in the fifth year before declining to 2.38 at the end of the most recent year of operations.

When total liabilities exceed equity, attention should be given to how much of the liabilities are current and how much are long term. When long-term liabilities comprise a large proportion of total liabilities, the ratio may be higher, because the cooperative has more time to resolve its financial situation.²

Net Capital Ratio

The net capital ratio is the ratio of total assets to total debt. This “is probably the most important measure of the overall solvency position of the business because it reflects the likelihood that the sale of all assets of the business would produce sufficient cash to cover all debt outstanding.”³ Different types of businesses will consider different ratio figures to be safe, but certainly a ratio greater than 1.0 is necessary; otherwise, if the business were liquidated, assets would not be sufficient to pay all debts and there would be no equity available to meet the shortfall. The composite net capital ratio for the cooperatives in this study began at 1.42 at the start of operations, increased to 1.51 after the first year, and by the end of the most recent year was at 1.44, meaning that the cooperatives averaged \$1.44 in assets for each \$1.00 in debt (table 9).

Other important solvency ratios to watch are the term liabilities/equity and fixed assets/equity ratios. When these ratios become high they indicate that the cooperative may have too much of its capital tied up in rigid commitments and may therefore lack liquidity and experience difficulty in meeting cash flow needs. It is difficult to determine how high these

ratios can safely go, as newer cooperatives burdened with a greater debt load will normally have higher such ratios than will older, more established cooperatives. One reference suggests that the value of fixed assets should not exceed 65 to 75 percent of the net worth (equity) of an established cooperative.⁴ The new cooperatives in this study did not meet this recommendation, being at or below ratios of 1.0 only in the fifth and most recent years. By this time the accumulated depreciation of fixed assets on the one side and the growth of member equity on the other had caused the figures to be nearly equal. In earlier years the value of the newer, fixed assets had far exceeded the lower member equity.

BORROWING AND DEBT SERVICING ABILITY

Cooperatives strive for a desirable balance between debt capital and member equity capital. A highly leveraged business is one that utilizes a large amount of debt capital relative to its equity, and this in turn increases financial risk. A highly leveraged business will experience a high return on its equity when the business is successful. However, its losses will be more significant, and occasionally even fatal, when financial setbacks occur. This higher risk may be reflected in the business’s cost of capital as higher interest rates for borrowed capital. A more likely alternative is for lending institutions not to extend credit to highly leveraged cooperatives because of the greater danger of loss to the bank. The cooperative itself will be increasingly reluctant to increase its leverage position for two other reasons as well. First, as the cooperative exploits its most attractive investment opportunities, the marginal rate of return on subsequent investments will decline until it falls below the increased rate of interest on borrowed funds. Second, cooperatives and other businesses may choose to hold their financial reserves as unused bank credit rather than as actual cash reserves.

²Ibid.

³Aaron G. Nelson, Warren F. Lee, and William G. Murray, *Agricultural Finance* Iowa State University Press, 1973, p. 113.

⁴R. E. Page, R. W. Schemerhorn, and B. D. Romine, *Financial Analysis of Grain and Supply Cooperatives*, p. 6.

Table 9—Solvency ratios

Year	Total assets	Total debt	Net capital ratio	Term liabilities	Equity	Ratio	Fixed assets	Equity	Ratio
	Dollars			Dollars			Dollars		
Start of operations	621,706	437,998	1.42	160,799	168,733	.95	217,347	168,733	1.29
First year	461,806	306,360	1.51	160,119	153,674	1.04	225,471	153,674	1.47
Third year	716,762	539,314	1.33	201,673	177,448	1.14	286,208	177,448	1.61
Fifth year	1,489,151	1,132,835	1.32	188,014	347,975	.54	316,889	347,975	.91
Most recent year	2,400,793	1,665,120	1.44	397,515	710,206	.56	737,704	710,206	1.04

Note: Start of operations information from seven cooperatives only.

This rationing of credit is relevant especially for agricultural cooperatives because of the greater degree of price and product variability inherent with agricultural commodities and because of the traditional fiscal conservatism of farmers. Nevertheless, as long as returns on invested capital exceed the cost of borrowed capital, it is profitable to increase debt.

A tremendous amount of capital is required for modern agricultural processing and marketing facilities, so even a maximum effort by the farmer-members of new cooperatives is unlikely to generate sufficient equity funds to construct and operate these facilities initially. Thus, the ability to acquire debt capital is essential. A cooperative's ability to borrow funds indicates the confidence lenders have in the business. As mentioned before, capital for a business can be obtained in only two ways: as equity by the owners of the business and as debt capital from lenders. The more money provided by the owners, the more willing lenders are to provide debt capital. One measure of outstanding debt, hence of borrowed funds, is the average total of current plus term liabilities for the 15 cooperatives. For the new cooperatives studied, this total nearly quadrupled from the start of operations to the most recent year, increasing from \$437,998 to \$1,665,120.

The 15 cooperatives reported having taken out a total of 53 loans, totaling \$23,660,989. In quantity, commercial banks issued the greatest number of loans, 22, followed by the Banks for Cooperatives with 18. However, in dollar volume, the Banks for Cooperatives provided the most debt capital, over \$21.4 million, more than 90 percent of all money borrowed. Commercial banks made slightly more than 5 percent of the loan dollar volume; the rest was scattered among other lenders (tables 10 and 11).

To learn more about the borrowing experience of the cooperatives studied, we asked them to differentiate their loans into the three functional categories of (1) land and buildings, (2) equipment, and 3) seasonal and operating loans. Nine loans were for equipment, 22 for land, and 22 for operating purposes. In dollar volume, 66 percent of the money borrowed, or \$15,731,800, was for seasonal and operating purposes. Banks for Cooperatives provided more than 97 percent of the seasonal and operating loan volume, primarily for the large grain cooperative studied. In contrast, although commercial banks made more than 45 percent of the number of loans for seasonal and operating purposes, they accounted for only 1.5 percent of the dollar amount loaned.

Table 10—Distribution of loans

Loan type	Bank for coop- eratives	Banks	Small Busi- ness Admin- istration	Savings and loan	Farmers Home Admin- istration	Other ¹	Total
<i>Number</i>							
Land and buildings	5	9	3	2	1	2	22
Equipment	4	3	0	0	1	1	9
Seasonal and operating	9	10	0	0	0	3	22
Total	18	22	3	2	2	6	53
<i>Percentage of loans by purpose</i>							
Land and buildings	27.8	40.9	100.0	100.0	50.0	33.3	—
Equipment	22.2	13.6	0.0	0.0	50.0	16.7	—
Seasonal and operating	50.0	45.5	0.0	0.0	0.0	50.0	—
Total	100.0	100.0	100.0	100.0	100.0	100.0	—
<i>Percentage of loans by lender</i>							
Land and buildings	22.7	40.9	13.6	9.1	4.6	9.1	100
Equipment	44.5	33.3	0	0	11.1	11.1	100
Seasonal and operating	40.9	45.5	0	0	0	13.6	100

¹These six loans came from the Alabama Farmers' Market Authority, a private citizen, a credit union, and the North Carolina Rural Fund for Development (three loans).

Table 11—Distribution of loan amounts

Loan type	Bank for coop- eratives	Banks	Small Busi- ness Admin- istration	Savings and loan	Farmers Home Admin- istration	Other ¹	Total
<i>Dollars</i>							
Land and buildings	3,240,000	871,736	291,130	20,000	206,193	90,480	4,719,539
Equipment	2,810,750	175,000	0	0	199,000	24,900	3,209,650
Seasonal and operating	15,350,000	244,000	0	0	0	137,800	15,731,800
Total	21,400,750	1,290,736	291,130	20,000	405,193	253,180	23,660,989
<i>Percentage of loan amount by purchase</i>							
Land and buildings	15.2	67.5	100.0	100.0	50.9	35.7	—
Equipment	13.1	13.6	0.0	0.0	49.1	9.8	—
Seasonal and operating	71.7	18.9	0.0	0.0	0.0	54.5	—
Total	100.0	100.0	100.0	100.0	100.0	100.0	—
<i>Percentage of loan amount by lender</i>							
Land and buildings	68.7	18.5	6.2	.4	4.3	1.9	100
Equipment	87.6	5.4	0	0	6.2	.8	100
Seasonal and operating	97.6	1.5	0	0	0	.9	100

¹These six loans came from the Alabama Farmers' Market Authority, a private citizen, a credit union, and the Northern Carolina Rural Fund for Development (three loans).

The cooperatives studied borrowed almost \$4.72 million for land and buildings and over \$3.2 million for equipment. Here again, Banks for Cooperatives were active, providing more than 76 percent of the loan amount for these purposes. However, although one grain cooperative borrowed \$2.7 million for construction of facilities from a Bank for Cooperatives, in general Banks for Cooperatives did not make many loans to these new cooperatives during their crucial first and second years of existence.

In their first 2 years in business, the cooperatives took out 13 loans for land, buildings, and equipment. Only 3 of these loans were made by Banks for Cooperatives, and when the single \$2.7 million loan is excluded, less than 27 percent of the loan volume for these purposes came from Banks for Cooperatives.

The debt history of each individual cooperative was examined to determine the characteristics of the average loan for land and buildings; equipment; and seasonal and operating purposes (table 12). The average loan for land and buildings was for \$214,525; amounts range from \$20,000 to \$2.7 million. The typical loan was for 12.7 years, although loans ranged

Table 12—Debt history 1968-77

Purpose of loan	Amount of loan	Length of loan	Rate of interest	Annual payment (includes interest)
	<i>Dollars</i>	<i>Years</i>	<i>Percent</i>	<i>Dollars</i>
Land and buildings	214,525	12.7	7.1	26,327
Equipment	356,628	10.4	7.6	52,297
Seasonal, working, and operating	715,082	1.6	7.5	—

— = Not applicable.

from 7 to 40 years. The average interest rate was 7.1 percent and the annual payment was \$26,327. The equipment loans averaged \$356,628 with a maturity of 10.4 years. Loans for seasonal and operating purposes averaged \$715,082 and ranged from \$1,500 to \$5.65 million. Nineteen of these loans were for 1 year or less while the other three were for 5 years.

The cooperatives surveyed were asked to identify sources of short-term operating capital that they had utilized in addition to a formal line of credit from lending institutions. Table 13 indicates these miscellaneous sources of capital that cooperatives have employed.

Finally, the surveyed cooperatives were asked several questions on their ability to obtain adequate debt capital, and having obtained it, to service the debt in a satisfactory and timely manner. Only one cooperative said that adequate debt financing had not been available; none of the cooperatives ever had loans in default. Only one cooperative had to defer a principal and/or interest payment at any time, and this occurred during the first year of its operation.

Table 13—Sources of operating capital

Source	Fruit and Vegetables	Grain	Livestock	Total
<i>Number</i>				
Supplier credit	1	1	—	2
Grants	1	—	—	1
Per unit retains	4	1	—	5
Income from operations	—	3	4	7
Commission firm credit	—	1	—	1
Debenture bonds	—	—	1	—

— = None.

Note: Income from operations includes retained earnings, sales commissions, and drying, handling, and storage charges.

SUMMARY OBSERVATIONS

The potential members of a new cooperative are more likely to invest money in a cooperative business if the business's prospects for success are bright. At the same time, a greater member equity contribution can improve a cooperative's likelihood for success. Traditionally, a general rule of thumb that many major lenders establish is that they will lend no more than 60 percent of the capital requirements of a new cooperative. Of the seven cooperatives in the study providing start of operations balance sheets only two met that rule and overall the average equity at the inception of the cooperatives was 27.1 percent. Perhaps this indicates that professional lenders do give more consideration to the type of cooperative enterprise and their knowledge of the members, the board of directors, and the hired management than is normally thought to be the case.

Cooperatives should be judged, both at their formation and later during their operations, on how well they serve the economic interests of their member/owners, that is, on how good an investment they are for their members. Without meeting this market oriented criterion, new cooperatives cannot compete with established cooperatives or their corporate competitors.

OTHER PUBLICATIONS AVAILABLE

The Changing Financial Structure of Farmer Cooperatives. Nelda Griffin, Roger Wissman, William J. Monroe, Francis P. Yager, and Elmer Purdue. Farmer Cooperative Research Report No. 17. March 1980. 172 pp.

Financing New Cooperatives. Raymond Williams and Richard Douglas. Program Aid No. 1229. 1979. 19 pp.

Equity Redemption Practices of Agricultural Cooperatives. Phillip F. Brown and David Volkin. Farmer Cooperative Research Report No. 41. April 1977.

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**U.S. Department of Agriculture
Agricultural Cooperative Service**

Agricultural Cooperative Service provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

The agency (1) helps farmers and other rural residents obtain supplies and services at lower costs and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs.

The agency publishes research and educational materials, and issues *Farmer Cooperatives*. All programs and activities are conducted on a nondiscriminatory basis, without regard to race, creed, color, sex, or national origin.